

# *U.S. Antarctic Marine Living Resources Program*

## *2012-2013 Weekly Field Reports*

### *Cape Shirreff, Livingston Island*

Volume 3  
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#### Science Report

##### Seabirds

1. Currently 4% of the reproductive study gentoo penguins have completed clutches of two eggs, 12% have one egg, and 84% have not laid yet. Of the chinstrap penguins in the reproductive study 13% have completed clutches, 35% have only one egg, and 52% have not laid.
2. We have continued to resight known-aged penguins. 26 known-aged chinstrap penguins initiated clutches, 7% have complete clutches. There are 11 known-aged gentoos currently breeding, none have complete clutches so far.
3. We recovered 3 more chinstrap penguin overwinter GLS instruments, making the total 44 recovered of 61 deployed.
4. We saw our first yearling chinstrap on 23 November.
5. Brown skuas are attending their nesting territories; only a few have initiated nest building.
6. There are currently 11 active kelp gull nests on the Cape.

##### Pinnipeds

7. As of yesterday all elephant seal pups have now been weaned and the last remaining two females have left for sea. We have tagged and collected DNA from 25 pups.
8. We surveyed Punta San Telmo west of Cape Shirreff where in previous years some elephant seals have bred. This year there were only two pups, two adult females and one large adult male. This confirms the total pup production for the Cape Shirreff Antarctic Specially Protected Area (ASPA) as 25. Last year there were 82 pups born in the ASPA.
9. At the last census of fur seal study beaches on 25 November we recorded 284 adult males on territory and a total of 99 adult females with 49 pups.



10. Yesterday we had two females arrive that carried geo-locating light sensors (GLS) overwinter. They bring the total GLS returns to three. We plan to recapture the first of these tomorrow or Wednesday.
11. We have recorded nine tagged known-age fur seal males to date, six of which are 13 years old reflecting the dominance of the 1999 year class in the population.
12. In order to get ready for the perinatal attendance female we have concluded range tests of our two VHF receiving stations for monitoring trip duration of fur seals. Both stations are now ready to begin logging instrumented fur seals.
13. We had substantial increases in both elephant seals and Weddell seals this past week. In the last weekly census of phocids on the Cape we recorded 155 elephant seals, 31 Weddell seals, and no crabeater or leopard seals.
14. We did, however, see our first leopard seal earlier in the week. It was a small male. We took photos for our leopard seal photo ID archive. He was untagged transient and did not remain long.

### Weather

15. We are still having below freezing temperatures and late spring thaw. The mean temperature for the week was  $-0.4^{\circ}$  C. The high for the week was  $6.3^{\circ}$  C and the low was  $-3.6^{\circ}$  C. Total precipitation this week was 0.28 inches. Most winds this week were from the west and south. Mean wind speed was 10.7 mph with maximum wind gust of 43 mph. Mean solar radiation this week was 15,541 watts per sq. meter.

### Camp

16. We celebrated Thanksgiving with a traditional festive dinner. We dug out the smoker and in spite of our smoker being badly rusted we were able to smoke a turkey. We had many other delicious dishes that each one of us prepared (fresh baked bread, cranberry sauce, pumpkin pies, etc).
17. Two people on the team have never skied before. Fortunately, Melany is a good ski instructor and gave David his first ski lessons complete with lots of photos of him falling.



18. Our fresh water is still completely frozen so we bring a barrel of frozen water into the main hut to keep up with demand. We have been using approximately one barrel a week.
19. We are having some troubles with the satellite email system but hopefully it will only be temporary.



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